



U.S. Environmental Protection Agency Portion
of the Resource Conservation and Recovery Act Permit
Pursuant to the Hazardous and Solid Waste Amendments

FACILITY: **Holcim (US) Inc./Geocycle LLC**
200 Safety Street/Highway 453
P.O. Box 698
Holly Hill, South Carolina 29059

EPA I.D. No. SCD 003 368 891

OWNERS: **Holcim (US) Inc.**
200 Safety Street/Highway 453
Holly Hill, South Carolina 29059

Orangeburg County, South Carolina
1437 Amelia Street
P.O. Box 9000
Orangeburg, South Carolina 29115

OPERATOR: **Geocycle LLC**
2175 Garner Boulevard
Holly Hill, South Carolina 29059

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, 42 USC Section 6901 et seq., and the Hazardous and Solid Waste Amendments (HSWA) of 1984, P.L. 98-616, and regulations promulgated thereunder by the U.S. Environmental Protection Agency (EPA) (codified and to be codified in Title 40 of the Code of Federal Regulations), this Permit is issued to Holcim (US) Inc., Geocycle LLC, and Orangeburg County, South Carolina (hereafter collectively called "the Permittee"), which owns and operates the Holcim (US) Inc./Geocycle LLC facility, a hazardous waste treatment facility located at 200 Safety Street/Highway 453, Holly Hill, South Carolina 29059 (the "Facility"). The Permittee, pursuant to this Permit, is authorized to treat hazardous waste in an industrial furnace system (also referred to as the "Portland cement kiln system") and to utilize direct burn equipment subject to the terms, conditions, limitations and requirements contained herein.

This Permit, in conjunction with the 2014 Hazardous Waste Management Permit Number SCD 003 368 891 ("State HWM Permit") issued by the South Carolina Department of Health and Environmental Control (SCDHEC), constitutes the full RCRA Permit for this Facility. The Permittee must comply with all terms and conditions of this Permit and all RCRA regulations applicable to this Facility. This Permit consists of the conditions contained herein (including those in any attachments) and applicable regulations contained in 40 CFR Parts 260 through 264, 266, 268, 270, and 124 as specified in the Permit and statutory requirements of RCRA, as amended by HSWA. Nothing in this Permit shall preclude the Regional Administrator from reviewing and modifying the Permit at any time during its term in accordance with 40 CFR § 270.41.

This Permit is based on the premise that information and reports submitted by the Permittee prior to issuance of this Permit are completed and accurate. Any inaccuracies found in this information or information submitted as required by this Permit may be grounds for termination or modification of this Permit in accordance with 40 CFR § 270.41, § 270.42, and § 270.43 and potential enforcement action. The Permittee must inform EPA of any deviation from or changes in the information in the application, which would affect the Permittee's ability to comply with the applicable regulations or Permit conditions.

This Permit is effective XX/XX/2015, and shall remain in effect for ten years until XX/XX/2025, unless revoked and reissued, or terminated under 40 CFR § 270.41 and § 270.43 or continued in accordance with 40 CFR § 270.51(a). If any conditions of this Permit are appealed in accordance with 40 CFR § 124.19, the effective date of the conditions determined to be stayed in accordance with 40 CFR § 124.16 shall be determined by final agency action as specified under 40 CFR § 124.19.

Issued Date

G. Alan Farmer
Director,
RCRA Division

TABLE OF PERMIT MODIFICATIONS
HOLCIM (US) INC. /GEOCYCLE LLC
EPA I.D. NUMBER SCD 003 368 891

Effective Date	Permit Conditions	Description
XX/XX/2015	Part III Industrial Furnace System Requirements	<p>The Permittee submitted a Part B Permit Application/Class 3 modification request on July 12, 2013. The application was revised on August 18, 2014 to include Orangeburg County, South Carolina, as a partial owner of the Facility's property. The permit application, the permit revision, and the modification request are being processed as part of the permit renewal. In addition to the renewal of the Permit, the following modifications have been made:</p> <p>(1) Orangeburg County, South Carolina has been added to the Permit as an owner of the Facility.</p> <p>(2) The Permittee is authorized to construct the hazardous waste handling portion of the precalciner portion of the Portland cement kiln system. This will result in the Permittee continuing to treat liquid hazardous waste in one industrial furnace system (also referred to as the "Portland cement kiln system"), but at two locations within the system: at the preheater/precalciner tower and at the lower (hot) end of the rotary kiln, with continued use of the direct burn system.</p> <p>(3) Paragraph III.P. (Closure of Wet Process Kilns) has been removed from this Permit because the Permittee closed the two wet process Portland cement kilns under an approved closure plan.</p> <p>(4) The portions of Part III of the Permit that primarily pertain to the operation and performance of the Portland cement kiln system that are duplicative of the requirements promulgated under the authority of 40 C.F.R. Part 63, Subpart EEE, the "National Emissions Standards for Hazardous Air Pollutants from Hazardous Waste Combustors," have been removed.</p> <p>(5) Other revisions have been made to this Permit for clarification and consistency during the renewal process.</p>

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PART I - STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

The Permittee is hereby authorized to manage hazardous waste at the Facility in accordance with this Permit. Under this Permit, the treatment of RCRA hazardous waste must comply with all standards, terms, and conditions of this Permit. Subject to 40 CFR § 270.4, compliance with this RCRA Permit constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3004(v), 3008(c), 3007, 3013 or 7003 of RCRA, Sections 104, 106(a), or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 *et seq.*, commonly known as CERCLA), or any other law providing for protection of public health or the environment.

I.B. PERMIT ACTIONS

This Permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §§ 270.41, 270.42, and 270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.

I.C. STAYS OF CONTESTED PERMIT CONDITIONS (SEVERABILITY)

As specified in 40 CFR § 124.16, if there is a request for review of this Permit, the contested permit conditions shall be stayed. Uncontested conditions which are not severable from those contested shall also be stayed. The provisions of this Permit are severable, as specified in 40 CFR § 124.16, and if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby.

I.D. DUTIES AND REQUIREMENTS

I.D.1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of RCRA and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

I.D.2. Duty to Reapply

If the Permittee will continue an activity allowed or required by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a permit renewal per 40 CFR § 270.30(b) at least one hundred eighty (180) calendar days before this Permit expires, unless permission for a later date has been granted by the Regional Administrator.

I.D.3. Need to Halt or Reduce Activity Not a Defense

In the event of an enforcement action, the Permittee shall not assert as a defense that the Permittee must halt or reduce the permitted activities, in order to maintain compliance with the conditions of this Permit.

I.D.4. Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases of hazardous waste or hazardous constituents to the environment, and shall carry out such measures as are reasonable to prevent significant adverse effects on human health or the environment.

I.D.5. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the Permit.

I.D.6. Duty to Provide Information

The Permittee shall furnish to the Regional Administrator, within a reasonable time, any relevant information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Regional Administrator, upon request, copies of any records required to be kept by this Permit or kept per applicable RCRA requirements of 40 CFR Parts 260, 261, 264, 266, and 268.

I.D.7. Inspection and Entry

The Permittee shall allow the Regional Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter, at reasonable times, upon the Permittee's premises where a RCRA regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit and applicable RCRA requirements ;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit and applicable RCRA requirements;
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated, or required under this Permit or subject to RCRA; and
- d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

I.D.8. Monitoring and Records

I.D.8.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative waste sample to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261, the EPA Region 4 Field Branches Quality System and Technical Procedures (most recent version), or equivalent method approved by the Regional Administrator. Procedures for sampling contaminated media must be those identified in the EPA Region 4 Field Branches Quality System and Technical Procedures (most recent version), or an equivalent method approved by the Regional Administrator. Laboratory methods must be those specified in the most recent edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, or an equivalent method approved by the Regional Administrator.

I.D.8.b. As provided for under 40 CFR Part 264, the Permittee shall remain at the Facility, or other appropriate location as approved by the Regional Administrator, records of all monitoring information required under the terms of this Permit, and applicable monitoring and record keeping required for applicable requirements of 40 CFR Parts 260, 261, 264, 266, and 268; including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit and records of all data used to prepare documents required by this Permit, the certification required by 40 CFR § 264.73(b)(9), and records of all data used to complete the application for this Permit, for a period of at least three (3) years from the date of the sample, measurement, report, certification or application, or, where specified in this Permit, until closure of the Facility or until occurrence of an alternative event as specified by revision of the federal regulations, whichever date is later. As a generator of hazardous waste, the Permittee shall retain a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to 40 CFR Part 268 for at least three (3) years from the date that the waste which is the subject of such documentation was last sent for on-site or off-site treatment, storage, or disposal. These periods may be extended by request of the Regional Administrator at any time and are automatically extended during the course of any unresolved enforcement action regarding this Facility.

The Permittee has demonstrated compliance with the maximum achievable control technology (MACT) requirements of 40 CFR Part 63, Subpart EEE by conducting a comprehensive performance test and submitting to the Regional Administrator a Notification of Compliance under 40 CFR §§ 63.1207(j) and 63.1210(b) documenting compliance with those requirements. All previous records demonstrating compliance with MACT requirements are still subject to this Permit condition.

Records of monitoring information shall specify:

- i. The dates, exact place, and times of sampling, or measurements;
- ii. The individuals who performed the sampling or measurements;
- iii. The dates on which analyses were performed;
- iv. The name of the laboratory which performed the analyses;
- v. The analytical techniques or methods used; and
- vi. The results of such analyses.

I.D.9. Reporting Planned Changes

The Permittee shall give written notice to the Regional Administrator as soon as possible of any planned physical alterations or additions to the permitted Facility. The notice shall include at a minimum, a summary of the planned change and the reason for the planned change.

I.D.10. Anticipated Noncompliance

The Permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted Facility or activity which may result in noncompliance with the requirements of this Permit.

I.D.11. Transfer of Permit

This Permit may be transferred to a new owner or operator only after notice to the Regional Administrator and only if the Permit is modified or revoked and reissued pursuant to 40 CFR § 270.40(b) or § 270.41(b)(2) to identify the new owner or operator and incorporate such other requirements as may be necessary under RCRA. Before transferring ownership or operation of all or any portion of a facility during its operating life, or of a disposal facility during the post-closure care period, the Permittee shall notify the new owner or operator in writing of the requirements of 40 CFR Parts 264 and 270, HSWA and this Permit.

I.D.12. Twenty-four Hour Reporting

I.D.12.a. The Permittee shall report any noncompliance which may endanger human health or the environment. Any such information shall be reported orally to the Regional Administrator within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances. This report shall include:

- i. Information concerning the release of any hazardous waste or hazardous constituents which may endanger public drinking water supplies; and
- ii. Information concerning the release or discharge of any hazardous waste or hazardous constituents, or of a fire or explosion at the Facility, which could threaten the environment or human health outside the Facility.

I.D.12.b. The description of the occurrence and its cause shall include:

- i. Name, address, and telephone number of the owner or operator of the Facility;
- ii. Name, address, and telephone number of the Facility;
- iii. Date, time, and type of incident;
- iv. Name and quantity of materials involved;
- v. The extent of injuries, if any;
- vi. An assessment of actual or potential hazard to the environment and human health outside the Facility; and
- vii. Estimated quantity and disposition of recovered material that resulted from the incident.

I.D.12.c.

A written notice shall also be provided to the Regional Administrator within five (5) calendar days of the time the Permittee becomes aware of the circumstances. The written notice shall contain the following:

- i. the information specified under Conditions I.D.12.a. and b.;
- ii. a description of the noncompliance or imminent hazard and its cause;
- iii. the periods of noncompliance (including exact dates and times);
- iv. whether the noncompliance or imminent hazard has been corrected; and if not, the anticipated time it is expected to continue; and
- v. the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance or imminent hazard.

The Regional Administrator may waive the five-day written notice requirement in favor of a written report within fifteen (15) calendar days.

I.D.13.

Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported in accordance with Conditions I.D.9. and I.D.12., at the time written reports, as required by this Permit, are submitted. The reports shall contain the information listed in Conditions I.D.9. and I.D.12., as appropriate.

I.D.14.

Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report(s) or any document(s) submitted to the Regional Administrator, the Permittee shall promptly submit such facts or information.

I.E.

SIGNATORY REQUIREMENT

All applications, reports, or information submitted to the Regional Administrator shall be signed and certified in accordance with 40 CFR § 270.11.

I.F.

CONFIDENTIAL INFORMATION

The Permittee may claim confidential any information required to be submitted by this Permit in accordance with 40 CFR § 270.12.

I.G.

REPORTS, NOTIFICATIONS AND SUBMISSIONS

Unless otherwise specified, one paper copy and one electronic version of applications, reports, notifications, or other submissions required by this Permit shall be submitted to the Regional Administrator in care of the RCRA Programs Branch Chief at the following address:

U.S. Environmental Protection Agency Region 4
Attn: Chief, RCRA Programs and Materials Management Branch
RCRA Division
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
Phone: (404) 562-8527

In addition, one paper copy and one electronic version shall be submitted to:

South Carolina Department of Health and Environmental Control
Attn: Director, Division of Waste Management
Bureau of Land and Waste Management
2600 Bull Street
Columbia, South Carolina 29201
Phone: (803) 898-2000

I.H.

DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in RCRA and 40 CFR Parts 124, 260, 261, 264, 266, 268 and 270, unless this Permit specifically provides otherwise. For references to 40 CFR Part 63, Subpart EEE requirements, terms used herein shall have the same meaning as in the Clean Air Act, 42 U.S.C. § 7401 et seq., and 40 CFR Part 63. Where terms are not defined in the regulations, the Permit, or EPA guidelines or publications, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

I.H.1.a. For purposes of this Permit, the following terms have the meaning set forth below:

I.H.1.b. The term “Approved Permit Application” means the RCRA Part A and B Permit Application and Class 3 Modification Request, dated June 2013, submitted by the Permittee on July 12, 2013.

I.H.1.c. The “Facility” means the Holcim/Geocycle facility located at 200 Safety Street Highway 453, Holly Hill, South Carolina 29059, as depicted on the maps attached as Appendix A, Figures 1 and 2. A “facility” includes all contiguous land, and structures, other appurtenances and improvements on the land, used for treating, storing or disposing of hazardous waste. A “facility” may consist of several treatment, storage or disposal operational units (e.g., one or more landfills, surface impoundments, or combination of them). For the purposes of implementing corrective action under 40 CFR § 264.101, a “facility” includes all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA.

I.H.1.d. The “Regional Administrator” means the Regional Administrator for the EPA Region in which the Facility is located, or his/her designee.

PART II - GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

In addition to the design and operating requirements specified elsewhere in this Permit, the Permittee shall comply with the provisions of 40 CFR § 264.31 with respect to the hazardous waste management units and activities encompassed by this Permit. Accordingly, Condition II.A. of the State HWM Permit is hereby incorporated by reference.

II.B. GENERAL WASTE ANALYSIS

In addition to the waste analysis requirements specified elsewhere in this Permit, the Permittee shall comply with the general waste analysis requirements of 40 CFR § 264.13 with respect to the units and activities encompassed by this Permit. Accordingly, Condition II.B. of the State HWM Permit is hereby incorporated by reference.

II.C. SECURITY

The Permittee shall comply with the security provisions of 40 CFR § 264.14 with respect to the hazardous waste management units and activities encompassed by this Permit. Accordingly, Condition II.C. of the State HWM Permit is hereby incorporated by reference.

II.D. GENERAL INSPECTION REQUIREMENTS

In addition to the inspection requirements specified elsewhere in this Permit, the Permittee shall comply with the general inspection requirements of 40 CFR § 264.15 with respect to the hazardous waste management units and activities encompassed by this Permit. Accordingly, Condition II.D. of the State HWM Permit is hereby incorporated by reference.

II.E. PERSONNEL TRAINING

The Permittee shall comply with the personnel training provisions of 40 CFR § 264.16 with respect to the hazardous waste management units and activities encompassed by this Permit. Accordingly, Condition II.G. of the State HWM Permit is hereby incorporated by reference.

II.F. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the ignitable, reactive and incompatible waste handling requirements of 40 CFR § 264.17 with respect to the hazardous waste management units and activities encompassed by this Permit. Accordingly, Condition II.I. of the State HWM Permit is hereby incorporated by reference.

II.G. PREPAREDNESS AND PREVENTION

The Permittee shall comply with the preparedness and prevention provisions of 40 CFR §§ 264.31 through 264.37 with respect to the hazardous waste management units and activities encompassed by this Permit. Accordingly, Condition II.K. of the State HWM Permit is hereby incorporated by reference.

II.H. CONTINGENCY PLAN

The Permittee shall comply with the contingency plan provisions of 40 CFR §§ 264.51 through 264.56 with respect to the hazardous waste management units and activities encompassed by this

Permit. Accordingly, Condition II.E. of the State HWM Permit is hereby incorporated by reference.

II.I. RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittee shall comply with the provisions of 40 CFR §§ 264.73, 264.74 and 264.77 with respect to the hazardous waste management units and activities encompassed by this Permit. Accordingly, Condition II.F. of the State HWM Permit is hereby incorporated by reference.

II.J. GENERAL CLOSURE REQUIREMENTS

In addition to the closure requirements specified elsewhere in this Permit, the Permittee shall comply with the provisions of 40 CFR §§ 264.111 through 264.115 with respect to the hazardous waste management units and activities encompassed by this Permit. Accordingly, Condition II.M. of the State HWM Permit is hereby incorporated by reference. The Permittee shall notify the Regional Administrator in writing at least forty-five (45) calendar days prior to the date on which the Permittee expects to begin closure of the industrial furnace or burn areas, as required by 40 CFR § 264.112.

II.K. COST ESTIMATE FOR FACILITY CLOSURE

The Permittee shall comply with the requirements of 40 CFR § 264.142 for maintaining a closure cost estimate that includes the hazardous waste management units and activities encompassed by this Permit. Accordingly, Condition II.N. of the State HWM Permit is hereby incorporated by reference.

II.L. FINANCIAL ASSURANCE FOR FACILITY CLOSURE

The Permittee shall comply with the requirements of 40 CFR § 264.143 for maintaining financial assurance for closure that includes the hazardous waste management units, wastes, and activities encompassed by this Permit. Accordingly, Condition II.O. of the State HWM Permit is hereby incorporated by reference.

II.M. LIABILITY REQUIREMENTS

The Permittee shall comply with the requirements of 40 CFR § 264.147 for maintaining liability coverage that includes the hazardous waste management units, wastes, and activities encompassed by this Permit. Accordingly, Condition II.P. of the State HWM Permit is hereby incorporated by reference.

II.N. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS

The Permittee shall comply with the provisions of 40 CFR § 264.148 with respect to the hazardous waste management units and activities encompassed by this Permit. Accordingly, Condition II.Q. of the State HWM Permit is hereby incorporated by reference.

II.O. MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of 40 CFR §§ 264.71, 264.72, and 264.76 for hazardous waste management units, wastes, and activities encompassed by this Permit. Accordingly, Condition II.L. of the State HWM Permit is hereby incorporated by reference.

II.P. REQUIRED NOTICES

II.P.1. Hazardous Waste Imports

The Permittee shall comply with the provisions of 40 CFR § 264.12 and shall notify the Regional Administrator in writing at least four (4) weeks in advance of the date the Permittee expects to receive hazardous waste from a foreign source. Notice of subsequent shipment of the same waste from the same foreign source is not required.

II.P.1.a. The Permittee shall follow the requirements for importers of hazardous waste in 40 C.F.R. Part 262, Subparts F and H, if the Permittee acts as the hazardous waste importer.

II.P.2. Hazardous Waste from Off-Site Sources

When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is a generator), the Permittee must inform the generator in writing that the Permittee has the appropriate permits and will accept the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the operating record required by Condition II.I.

PART III - INDUSTRIAL FURNACE SYSTEM REQUIREMENTS

III.A.

AUTHORIZED UNITS

This Permit authorizes the Permittee to treat liquid hazardous wastes in one industrial furnace system (also referred to as the “Portland cement kiln system”) at two locations within the system (precalciner portion of the preheater/precalciner tower and the lower (hot) end of the rotary kiln) and to operate one direct burn system (also referred to as “a direct transfer system”) constructed and maintained as described in the Approved Permit Application. Hazardous waste treatment in the Portland cement kiln system and direct burn system must occur in accordance with the terms and conditions of this Permit.

The Portland cement kiln system is described in Section 4.6 of the Approved Permit Application and consists of a four-stage preheater/precalciner hazardous waste burning Portland cement kiln with ancillary feed equipment, air pollution control systems, and exhaust. The design capacity of the Portland cement kiln system is approximately 2.5 million short tons per year of cement clinker. Liquid hazardous wastes are fired in the burning zone of the rotary cement kiln to provide thermal input for production of the cement clinker. The liquid hazardous waste fuels are pumped from hazardous waste storage tanks or the direct transfer system through feed rate monitoring equipment into the lower (hot) end of the rotary kiln to the burning zone of the rotary cement kiln. When constructed and approved as set forth in Condition III.B., the liquid hazardous waste fuels will also be pumped from hazardous waste storage tanks or the direct transfer system through feed rate monitoring equipment into the precalciner portion of the preheater/precalciner tower. Exhaust gases exit the Portland cement kiln system and are treated in one of two fabric filtration air pollution control systems (main or bypass) before released to the atmosphere via a 109.5-meter main stack. A portion of the exhaust gases may be diverted to the coal mill system and are treated in the coal mill fabric filtration air pollution control system before release to the atmosphere via a 41.3-meter coal meter stack.

The direct burn system for transfer of pumpable hazardous waste to the Portland cement kiln system without use of a storage unit is described in Section 4.4 of the Approved Permit Application. The authorized area is identified as Area 7100 on the Site Plan included as Attachment 4-25 of the Approved Permit Application.

III.B.

UNIT CONSTRUCTION CERTIFICATION AND INSPECTION

The Permittee is hereby authorized to construct the modified hazardous waste handling portions of the Portland cement kiln system located in the precalciner portion as described in Section 4 (and attachments) of the Approved Permit Application. The Permittee may not treat hazardous waste in the precalciner portion of the Portland cement kiln system until:

III.B.1.

Certification of Construction

The Permittee has submitted to the Regional Administrator, by certified mail or hand delivery, a letter signed by the Permittee and a registered professional engineer stating that the modified hazardous waste handling portions of the Portland cement kiln system have been constructed in accordance with information provided in Section 4 of the Approved Permit Application.

III.B.2.

Inspection

The Regional Administrator has inspected the newly constructed portions of the Portland cement kiln system and finds them to be in compliance with the conditions of this Permit, or, within

fifteen (15) calendar days of submission of the letter pursuant to Condition III.B.1., the Permittee has not received notice from the Regional Administrator of his or her intent to inspect, in which case prior inspection is waived and the Permittee may commence treatment of hazardous waste.

III.C. AUTHORIZED WASTES

III.C.1. Approved

The Permittee may treat only those hazardous wastes identified in Section 10 of Part A in the Approved Permit Application.

III.C.2. Prohibited

The Permittee is prohibited from treating the following materials: Hazardous Waste Nos. F020, F021, F022, F023, F026, F027, and D003; acute/highly toxic (P-Code) hazardous wastes; Toxic Substances Control Act (TSCA)-regulated polychlorinated biphenyls; regulated infectious waste; regulated radioactive waste; compressed gases; and explosives.

III.D. APPLICABILITY OF INDUSTRIAL FURNANCE SYSTEM (PORTLAND CEMENT KILN SYSTEM) PERMIT CONDITIONS

As of June 28, 2004 (the postmark date of the Permittee's Notification of Compliance under 40 CFR §§ 63.1207(j) and 63.1210(b) documenting compliance with the maximum achievable control technology (MACT) requirements of 40 CFR Part 63, Subpart EEE (also known as the Clean Air Act Hazardous Waste Combustor NESHAP)), the Portland cement kiln system is subject to the requirements of 40 CFR Part 63, Subpart EEE and is required to be in compliance with those requirements. In addition to the MACT requirements, air emissions from the Portland cement kiln system are subject to the terms and conditions of Condition III.E. of this Permit.

III.E. PERFORMANCE STANDARDS AND EMISSION LIMITATIONS

In addition to the MACT requirements, air emissions from the Portland cement kiln system are subject to the terms and conditions of this Permit. The Permittee shall construct and maintain the Portland cement kiln system so that, when operated in accordance with the feed limitations and operating requirements as specified in the Facility's Air/MACT Title V Operating Permit, Permit No. TV-1860-0005 (hereinafter, "Title V Operating Permit") and this Permit, it will meet the following performance standards and emission limitations for mercury in addition to meeting the emission limitations for all other pollutants identified in the Title V Operating Permit.

III.E.1. Mercury Emissions Standards

The following limitations are established to ensure that mercury is not emitted at levels which could threaten human health or the environment:

III.E.1.a. If the Permittee elects to comply with the alternative mercury standard described in 40 CFR § 63.1206(b)(15) in lieu of complying with the applicable mercury standard of 40 CFR § 63.1204(b)(2), the Permittee shall perform emissions testing for mercury to demonstrate mercury system removal efficiency (SRE) in accordance with the following equation:

$$\text{SRE} = [1 - (W_{\text{out}}/W_{\text{in}})] \times 100\%$$

Where:

W_{in} = total mass feed rate of mercury from all feed streams entering the kiln

W_{out} = total mass emission rate of mercury present in exhaust emissions

III.E.1.b.

The emissions testing required by Condition III.E.1. shall be performed whenever the Permittee performs the comprehensive emissions testing required by 40 CFR § 63.1207 to demonstrate compliance with the metal emission standards of 40 CFR §§ 63.1204(b)(3) and (b)(4). The testing shall be performed without supplemental spiking of mercury into the kiln feed streams.

III.E.1.c.

Within ninety (90) calendar days of completing the emission testing required by Condition III.E.1.a., the Permittee shall submit to the Regional Administrator the results of the mercury system removal efficiency demonstration and all data collected in support of that determination. The Permittee shall also use the information collected during the test to estimate the maximum potential mercury emissions that could occur if mercury were fed at the maximum waste fuel mercury feed rate allowed by 40 CFR § 63.1206(b)(15). The maximum potential mercury emissions rate (W_{outmax}) shall be calculated based on extrapolation of the test data as follows:

$$W_{outmax} = W_{inmax} \times [1 - (SRE/100)]$$

Where:

W_{inmax} = total mass feed rate of mercury from all feed streams entering the kiln as measured during the test (W_{in}), plus the maximum incremental mass feed rate of waste fuel mercury (in excess of the waste fuel mercury measured during the test) which could be fed to the kiln without exceeding the 40 CFR § 63.1206(b)(15) waste feed limit.

III.E.1.d.

If, based on the results of the emission testing required by Condition III.E.1.a., the measured total mass emission rate of mercury (W_{out}) is found to exceed 0.0224 grams/second, or if the maximum potential emission rate of mercury (W_{outmax}) determined in accordance with Condition III.E.1.c. is found to exceed 0.0224 grams/second, the Regional Administrator may require additional risk evaluation. As warranted, the Permit may be modified to impose additional restrictions.

III.F.

FEED LIMITATIONS AND OPERATING REQUIREMENTS

III.F.1.

Physical Form and Location

The Permittee may only introduce pumpable liquid hazardous waste fuels to the Portland cement kiln system via the burner system located at the hot (burning zone) end of the rotary cement kiln and/or at the precalciner portion of the preheater/precalciner tower (when constructed and approved in accordance with Condition III.B.). Hazardous wastes shall not be fed to the rotary kiln and/or the precalciner in any other physical form or location unless this Permit is modified pursuant to 40 CFR § 270.42.

III.F.2.

Energy Content Standard

The Permittee shall not burn any hazardous waste in the Portland cement kiln system that has a heating value of less than 5,000 British thermal units per pound (Btu/lb) as generated, unless the heating value is increased to above 5,000 Btu/lb by treatment other than blending prior to introduction of the waste into the Portland cement kiln system.

III.F.3. Treatment Rate (Capacity)

Hazardous waste treatment in the Portland cement kiln system shall not exceed a total hazardous waste treatment rate of 149,000 short tons per year. The Permittee shall perform monitoring and recording of the total hazardous waste treatment rate as necessary to document compliance with this Permit condition. The records must be maintained as provided in Condition III.L. of this Permit.

III.G. WASTE ANALYSIS

III.G.1. Physical and Chemical Composition

The Permittee must conduct sampling and analysis as necessary to ensure that the hazardous waste, other fuels, and Portland cement kiln system feed stocks fired into the Portland cement kiln system are within the physical and chemical composition limits specified in this Permit.

III.G.2. Authorized Waste

Waste analysis to document compliance with Condition III.C. and Condition III.F.2. of this Permit shall be conducted in accordance with the Waste Analysis Plan submitted as Section 3 of the Approved Permit Application.

III.H. MONITORING, RECORDING AND INSPECTIONS

III.H.1. Inspections

The Portland cement kiln system and associated equipment (pumps, valves, pipes, hazardous waste fuel storage tanks, etc.) shall be subjected to thorough visual inspection when the equipment contains hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering. These inspections shall be conducted and recorded as specified in Section 6.4 of the Approved Permit Application.

III.H.2. Operating Record

The analysis, monitoring and inspection data required by this Permit shall be recorded and placed in the operating record required by 40 CFR § 264.73 and Condition II.I. of this Permit and by Condition II.F. of the State HWM Permit. The records must be maintained as provided in Condition III.L. of this Permit.

III.H.2.a. The Permittee has demonstrated compliance with the MACT requirements of 40 CFR Part 63, Subpart EEE by conducting a comprehensive performance test and submitting to the Administrator a Notification of Compliance under 40 CFR §§ 63.1207(j) and 63.1210(b) documenting compliance with those requirements. Consistent with Condition I.D.8.b., all previous records demonstrating compliance with MACT requirements are still subject to this Permit condition.

III.I. CHANGES

The Permittee must cease burning hazardous waste when changes in combustion properties, or feed rates of the hazardous waste, other fuels, or Portland cement kiln system feedstocks, or changes in the Portland cement kiln system design or operating conditions deviate from the limits as specified in this Permit and as required by the Title V Permit and as required by the MACT requirements of 40 CFR Part 63. The Permittee may burn hazardous waste under different feed, operating, or design conditions than specified in this Permit only if the Permit is modified pursuant to 40 CFR §§ 270.41 or 270.42 to reflect revised conditions.

III.J. DIRECT TRANSFER OF HAZARDOUS WASTES

III.J.1. Locations

The Permittee shall construct, operate and maintain permitted area(s) for direct transfer of pumpable hazardous waste to the Portland cement kiln system in accordance with the plans and specifications provided in Section 4.4 of the Approved Permit Application. The authorized area is identified as Area 7100 on the Site Plan included as Attachment 1-4 of the Approved Permit Application.

III.J.2. Standards

The Permittee shall comply with the standards of 40 CFR § 266.111 as described in Section 4.4 of the Approved Permit Application when transferring hazardous waste directly from a transport vehicle (tanker truck) to the Portland cement kiln system without use of a storage unit as follows:

III.J.2.a. The Permittee shall not transfer pumpable hazardous waste directly from an open-top transport vehicle to the Portland cement kiln system.

III.J.2.b. All direct transfer equipment used for pumpable hazardous waste shall remain closed at all times, except when necessary to add or remove the waste, and shall not be opened, handled or stored in a manner that may cause any rupture or leak.

III.J.2.c. The direct transfer of hazardous waste to the Portland cement kiln system shall be conducted so that it does not:

- i. generate extreme heat or pressure, fire, explosion, or violent reaction;
- ii. produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;
- iii. produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- iv. damage the structural integrity of the container or direct transfer equipment containing the waste;
- v. adversely affect the capability of the Portland cement kiln system to meet the conditions of this Permit; or
- vi. threaten human health or the environment.

III.J.2.d. The Permittee shall not place hazardous waste in direct transfer equipment if it could cause the equipment or its secondary containment system to rupture, leak, corrode, or otherwise fail.

III.J.2.e. The Permittee shall use appropriate controls and practices to prevent spills and overflows from the direct transfer equipment or its secondary containment system. These include at a minimum:

- i. spill prevention controls as described in the Approved Permit Application; and
- ii. automatic waste feed cutoff in the event of a leak or spill from the direct transfer equipment.

III.J.3. Inspections

The Permittee shall conduct inspections of the direct transfer operations at least once each operating hour while hazardous waste is being transferred from a transport vehicle according to the procedures described in Sections 4.4 and 6.4 of the Approved Permit Application.

III.J.4. Leaks or Spills

The Permittee shall comply with the provisions of 40 CFR § 265.196 in response to leaks or spills.

III.K. REGULATION OF RESIDUES

For cement kiln dust residues generated during burning of hazardous waste to be excluded from the definition of hazardous waste pursuant to 40 CFR § 261.4(b)(8), the Permittee must comply with the provisions of 40 CFR § 266.112:

III.K.1. Processing Materials in Kiln

At least 50% by weight normal cement-production raw materials must be processed in the Portland cement kiln system.

III.K.2. Cement Kiln Dust Exclusion

The Permittee shall sample and analyze cement kiln dust as described in Section 3, Attachment 3-2 (Cement Kiln Dust (CKD) Sampling Plan) of the Approved Permit Application and document that the dust meets the criteria for exclusion specified in Section 3, Attachment 3-2 (CKD Sampling Plan) of the Approved Permit Application.

III.K.3. Recordkeeping

The Permittee shall retain records sufficient to document compliance with the provisions of 40 CFR § 266.112. The records must be placed in the operating record required by 40 CFR § 264.73 and Condition II.I. of this Permit and Condition II.F. of the State HWM Permit. The records must be maintained as provided in Condition III.L. of this Permit. At a minimum, the following shall be recorded:

- a. Levels of constituents in 40 CFR Part 261, Appendix VIII present in the waste-derived cement kiln dust residues as described in Attachment 3-2 of the Approved Permit Application;
- b. If the waste-derived residue is compared with normal residue pursuant to 40 CFR § 266.112(b)(1):

- i. levels of constituents in 40 CFR Part 261, Appendix VIII present in normal residues as described in Attachment 3-2 of the Approved Permit Application; and
 - ii. data and information, including analyses of samples as necessary, obtained to determine if changes in raw materials or fuels would reduce the concentration of toxic constituents in the normal residue.
- c. The information identified in Condition I.D.8. of this Permit.

III.L.

RECORDKEEPING

All information and data required by Part III of this Permit shall be recorded and placed in the operating record required by 40 CFR § 264.73 and Condition II.I. of this Permit and Condition V.L. of the State HWM Permit. The records must be maintained until closure of the Portland cement kiln system as a hazardous waste burner or until occurrence of an alternate event as specified by revision of the federal regulations, except that the inspection records for Condition III.H.1. of this Permit need be kept only three (3) years. The Permittee has demonstrated compliance with the maximum achievable control technology (MACT) requirements of 40 CFR Part 63, Subpart EEE by conducting a comprehensive performance test and submitting to the Administrator a Notification of Compliance under 40 CFR §§ 63.1207(j) and 63.1210(b) documenting compliance with those requirements. Consistent with Condition I.D.8.b. of this Permit, all previous records demonstrating compliance with MACT requirements are still subject to this Permit condition.

III.M.

CLOSURE

At closure, the Permittee shall implement the closure plan provided in Section 8 of the Approved Permit Application and remove all hazardous waste and hazardous waste residues from the direct burn area and the Portland cement kiln system, including ancillary hazardous waste feed equipment and the air pollution control systems, as described in Section 8 of the Approved Permit Application.

APPENDICES

APPENDIX A
Facility Information

FIGURE 1
Facility Boundary Map

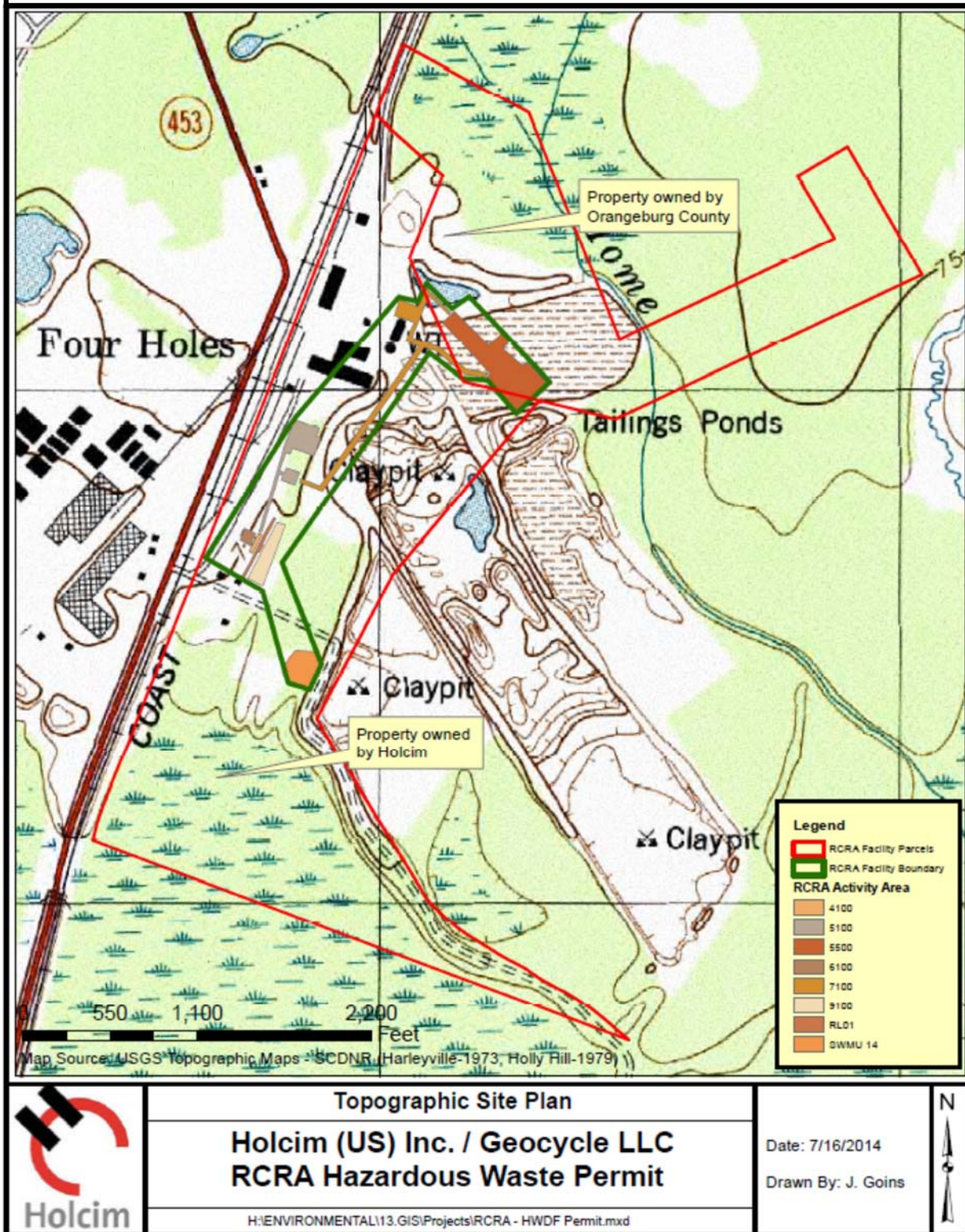
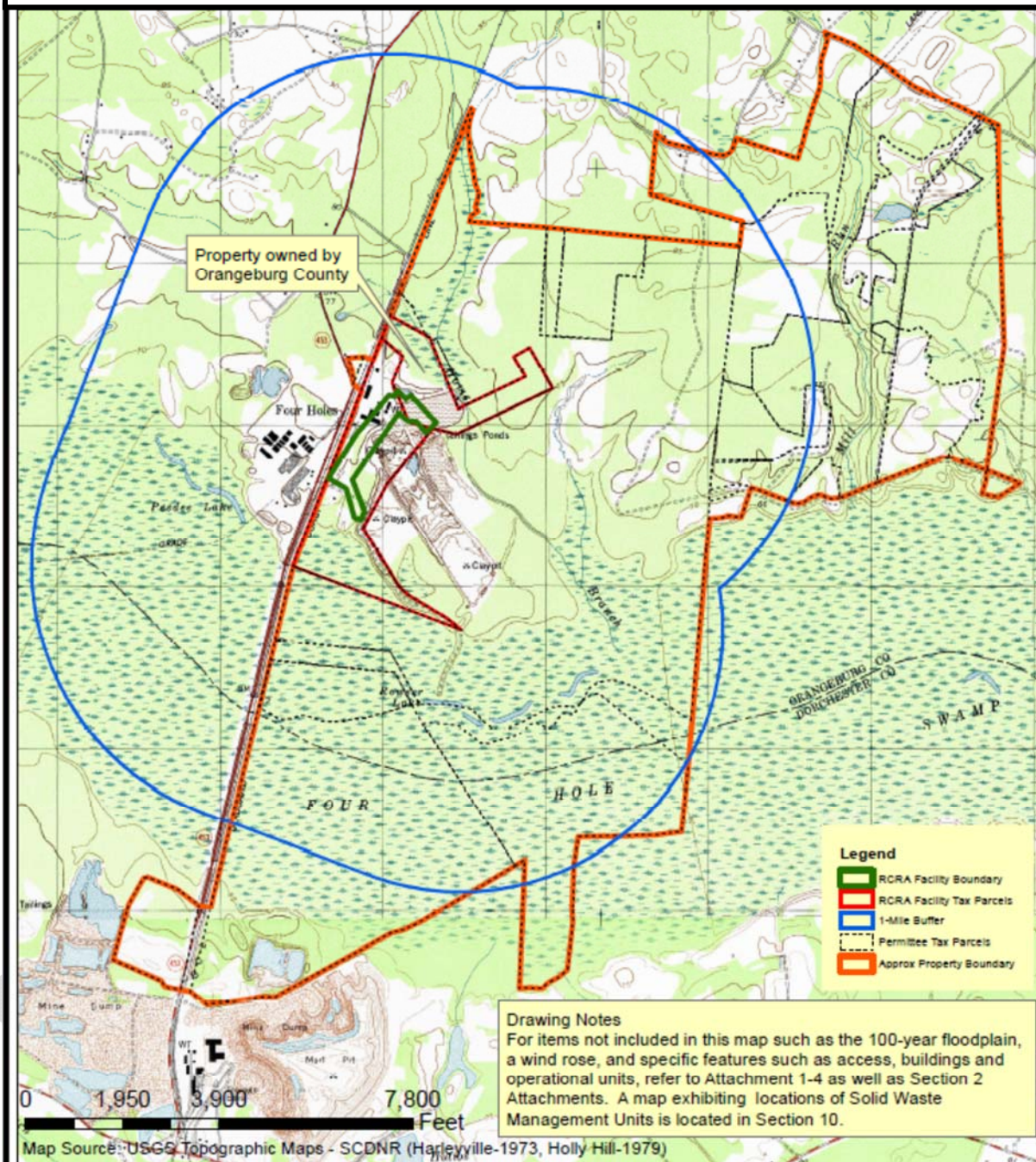


FIGURE 2
Facility Property Map



Attachment 1-5: Topographic Site Plan
Holcim (US) Inc. / Geocycle LLC
RCRA Hazardous Waste Permit

H:\ENVIRONMENTAL\13.GIS\Projects\RCRA - HWDF Permit.mxd

Date: 7/16/2014

Drawn By: J. Goins

